Percentages 1 Answers

1)	**(a)**	06 41		1	Allow 6.41(am). 6:41 and 06:41 Not 6h41m or 641h or 6.41pm
	(b)	\$204		1	

2)

139   2   **M1** $1.322 \times 10^9 / 9.5 \times 10^8$ $(\times 100)$

3)   18   2   **M1** for $21.6 \div 1.2$ oe

4)	**(a)**	(\$) **450**	**B2**	**M1** for $650 \div (9 + 4) \times 9$ $(\div 14$ does not imply $9 + 4)$
	(b) (i)	(\$) **120**	**B2**	**M1** for 0.8×150 o.e.
	(ii)	(\$) **80 ft**	**B2 ft**	**M1** for $(150 – their\textbf{(b)(i)}) \div 0.375$ o.e. only if +ve. After **M0**, **SC1** for answer 320
	(c) (i)	(\$) **441**	**B2**	**M1** for 400×1.05^2 o.e. or for answer 41

(c) (ii)

$\dfrac{1}{2}$ their $(\textbf{(i)} – 400) \div 400 \times 100$ o.e.   **M2**

5.125 or **5.13** or **5.12** c.a.o. www3   **A1**

If use Simple Int in (i), **M0, M0** in this **part**
i.e. a full explicit method for *r*
If **M0**,

M1 for $\dfrac{400 \times r \times 2}{100} = their\,\textbf{(i)} – 400$

or their **(i)** $\div 400 \times 100$ then $– 100$

or $\dfrac{their\,\textbf{(i)} \text{-} 400}{400} \times 100$ (s.o.i. by 10.25)

If still **M0**, **SC1** for answers 55.125 or 55.12 or 55.13 or 55.1 or 0.05125 or 0.0512 or 0.0513

[11]

5)

	(a)	$240 \div 8 \times 3$ or $240 \div 8 \times 5$ or $\dfrac{3}{8}$ of 240 or $\dfrac{5}{8}$ of 240 oe	1	Accept reverse e.g. $90 : 150 = 3 : 5$ **and** $90 + 150 = 240$
	(b) (i)	5 www 2	2	**M1** for $\dfrac{100 \times 9}{90 \times 2}$ oe
	(ii)	165 www 2	2	**M1** for $99 \div 0.6$ oe
	(c)	162.24 final answer cao	2	**M1** for $150 \times 1.04 \times 1.04$ oe implied by answer 162.2
	(d) (i)	58.67 final answer cao	3	**SC2** for 58.7 **or** **M1** for $\dfrac{150 \times 4 \times 20}{100}$ oe (120) **then M1** (dependent on the first M1) $328.67 – 150 – their\ 120$ oe Answers of 208.67 or 208.7 imply first M1
	(ii)	219 (.1….) www 2	2	**M1** for $\dfrac{328.67}{150} \times 100$ oe

Percentages 1 Answers

6)

(b)	31.83	3	**SC2** for 31.827 as final answer or not spoiled. **or M1** for × 1.03 twice oe
(c)	1.5	2	**M1** for $\dfrac{30 \times r \times 5}{100} = 2.25$ oe or for 2.25 ÷ 5 then ÷ 30 × 100

7)

(b)	349.70	3	M1 for $\dfrac{325 \times 2 \times 3.8}{100}$ or 24.7(0) M1dep for their interest added to 325
(c)	617.98	3	M2 for 550×1.06^2 or M1 for 550 × 1.06 oe and M1 dep for second year Penalise accuracy only once in the question

8)

(a)	314.60	3	M1 for $\dfrac{275 \times 4 \times 3.6}{100}$ or 39.6 M1 dep for their interest added to 275
(b)	703.04	3	M2 for 650×1.04^2 or M1 for 650 × 1.04 oe (implied by 676) and M1 dep for second year

9) $674.92, 674.9(0) or 675 — 3 — **M2** $600 \times (1 + (4/100))^3$ or better   oe
or **M1** 600×1.04^2 oe

10) 216.32 cao — 2 — **M1** $200 \times (1 + (4/100))^2$ oe

11) 127.31 cao — **3** — **M1** for 120×1.03^2
A1 for 127.308
If **M0** award **SC2** for 7.31 or 247.31

12) 8812.50 final answer   www 3 — 3 — Condone 8812.5
M2 for 7500 × 5 × 0.035 + 7500 oe (implied by final answers 8810, 8812, 8813 or 8812.5(0) seen)
or B2 for 1312.5 as final answer
or M1 for 7500 × 5 × 0.035 oe (implied by final answers 1310, 1312, 1313)

13) 882 — **2** — **M1** 800 × 1.05 × 1.05